PCT10

RAW SEQUENCE LISTING DATE: 06/04/2002
PATENT APPLICATION: US/10/030,500 TIME: 14:52:51

Input Set : A:\33339-242753 SEQLIST.TXT
Output Set: N:\CRF3\06042002\J030500.raw

ENTERED

<110> APPLICANT: Leutenegger, Christian
Schroff, Mattias
Willig, Burghardt
Lutz, Hans

<120> TITLE OF INVENTION: Vaccine Against Lentiviral Infections,
such as the Feline Immune Deficiency Virus of the Cat

<130> FILE REFERENCE: 33339/242753

C--> <140> CURRENT APPLICATION NUMBER: US/10/030,500

C--> <141> CURRENT FILING DATE: 2002-01-08

<150> PRIOR APPLICATION NUMBER: PCT/DE00/02262

<151> PRIOR FILING DATE: 2000-07-08

<150> PRIOR APPLICATION NUMBER: CH 1258/1999

<151> PRIOR FILING DATE: 1999-07-08

<160> NUMBER OF SEQ ID NOS: 10

<170> SOFTWARE: FastSEQ for Windows Version 4.0

<210> SEQ ID NO: 1

<211> LENGTH: 5871

<212> TYPE: DNA

<213> ORGANISM: Feline lentiviruses

<220> FEATURE:

<221> NAME/KEY: misc_feature

<222> LOCATION: (0)...(0)

<223> OTHER INFORMATION: FIV gp140 (pMOLFIVgp140)

<400> SEQUENCE: 1

tcttccgctt cctcgctcac tgactcgctg cgctcggtcg ttcggctgcg gcgagcggta 60
tcagctcact caaaggcggt aatacggtta tccacagaat caggggataa cgcaggaaag 120
aacatgtgag caaaaggcca gcaaaaggcc aggaaccgta aaaaggccgc gttgctggcg 180
tttttccata ggctccgccc ccctgacgag catcacaaaa atcgacgctc aagtcagagg 240
tggcgaaacc cgacaggact ataaagatac caggcgtttc cccctggaag ctccctcgtg 300
cgctctcctg ttccgaccct gccgcttacc ggatacctgt ccgcctttct cccttcggga 360
agcgtggcgc tttctcatag ctcacgctgt aggtatctca gttcggtgta ggtcgttcgc 420
tccaagctgg gctgtgtgca cgaaccccc gttcagcccg accgctgcgc cttatccggt 480
aactatcgtc ttgagtccaa cccggtaaga cacgacttat cgccactggc agcagccact 540
ggtaacagga ttagcagagc gaggtatgta ggcggtgcta cagagttctt gaagtggtgg 600
cctaactacg gctacactag aaggacagta tttggtatct gcgctctgct gaagccagtt 660
accttcggaa aaagagttgg tagctcttga tccggcaaac aaaccaccgc tggtagcggt 720
ggtttttttg tttgcaagca gcagattacg cgcagaaaaa aaggatctca agaagatcct 780
ttgatctttt ctacggggtc tgacgctcag tggaacgaaa actcacgtta agggattttg 840
gtcatgagat tatcaaaaag gatcttcacc tagatccttt taaattaaaa atgaagtttt 900
aaatcaatct aaagtatata tgagtaaact tggtctgaca gttaccaatg cttaatcagt 960
gaggcaccta tctcagcgat ctgtctattt cgttcatcca tagttgcctg actccccgtc 1020
gtgtagataa ctacgatacg ggagggctta ccatctggcc ccagtgctgc aatgataccg 1080
cgagacccac gctcaccggc tccagattta tcagcaataa accagccagc cggaagggcc 1140

RAW SEQUENCE LISTING DATE: 06/04/2002
PATENT APPLICATION: US/10/030,500 TIME: 14:52:51

Input Set : A:\33339-242753 SEQLIST.TXT
Output Set: N:\CRF3\06042002\J030500.raw

56 gagcgcagaa gtggtcctgc aactttatcc gcctccatcc agtctattaa ttgttgccgg 1200
57 gaagctagag taagtagttc gccagttaat agtttgcgca acgttgttgc cattgctaca 1260
58 ggcatcgtgg tgtcacgctc gtcgtttggt atggcttcat tcagctccgg ttcccaacga 1320
59 tcaaggcgag ttacatgatc ccccatgttg tgcaaaaaag cggttagctc cttcggtcct 1380
60 ccgatcgttg tcagaagtaa gttggccgca gtgttatcac tcatggttat ggcagcactg 1440
61 cataattctc ttactgtcat gccatccgta agatgctttt ctgtgactgg tgagtactca 1500
62 accaagtcat tctgagaata gtgtatgcgg cgaccgagtt gctcttgccc ggcgtcaata 1560
63 cgggataata ccgcgccaca tagcagaact ttaaaagtgc tcatcattgg aaaacgttct 1620
64 tcggggcgaa aactctcaag gatcttaccg ctgttgagat ccagttcgat gtaacccact 1680
65 cgtgcaccca actgatcttc agcatctttt actttcacca gcgtttctgg gtgagcaaaa 1740
66 acaggaaggc aaaatgccgc aaaaaaggga ataagggcga cacggaaatg ttgaatactc 1800
67 atactcttcc tttttcaata ttattgaagc atttatcagg gttattgtct catgagcgga 1860
68 tacatatttg aatgtattta gaaaaataaa caaatagggg ttccgcgcac atttccccga 1920
69 aaagtgccac ctgacgtcta agaaaccatt attatcatga cattaaccta taaaaatagg 1980
70 cgtatcacga ggccctttcg tctcgcgcgt ttcggtgatg acggtgaaaa cctctgacac 2040
71 atgcagctcc cggagacggt cacagcttgt ctgtaagcgg atgccgggag cagacaagcc 2100
72 cgtcagggcg cgtcagcggg tgttggcggg tgtcggggct ggcttaacta tgcggcatca 2160
73 gagcagattg tactgagagt gcaccatatg cggtgtgaaa taccgcacag atgcgtaagg 2220
74 agaaaatacc gcatcaggcg ccattcgcca ttcaggctgc gcaactgttg ggaagggcga 2280
75 tcggtgcggg cctcttcgct attacgccag ctggcgaaag ggggatgtgc tgcaaggcga 2340
76 ttaagttggg taacgccagg gttttcccag tcacgacgtt gtaaaacgac ggccagtgcc 2400
77 aagcttgcga attctggatc cgctagctta accgtattac cgccatgcat tagttattaa 2460
78 tagtaatcaa ttacggggtc attagttcat agcccatata tggagttccg cgttacataa 2520
79 cttacggtaa atggcccgcc tggctgaccg cccaacgacc cccgcccatt gacgtcaata 2580
80 atgacgtatg ttcccatagt aacgccaata gggactttcc attgacgtca atgggtggag 2640
81 tatttacggt aaactgccca cttggcagta catcaagtgt atcatatgcc aagtacgccc 2700
82 cctattgacg tcaatgacgg taaatggccc gcctggcatt atgcccagta catgacctta 2760
83 tgggactttc ctacttggca gtacatctac gtattagtca tcgctattac catggtgatg 2820
84 cggttttggc agtacatcaa tgggcgtgga tagcggtttg actcacgggg atttccaagt 2880
85 ctccacccca ttgacgtcaa tgggagtttg ttttggcacc aaaatcaacg ggactttcca 2940
86 aaatgtcgta acaactccgc cccattgacg caaatgggcg gtaggcgtgt acggtgggag 3000
87 gtctatataa gcagagctgg tttagtgaac cgtcagatgg taccatggca gaaggatttg 3060
88 cagccaatag acaatggata gggccagaag aagctgaagg gttgttagat tttgatatag 3120
89 caacacaaat gaatgaagaa gggccactaa atccaggaat aaacccattt agggtgcctg 3180
90 gaatagcaga aatagaaaag cgagactatt gcaaaatatt acaacccaaa ttacaagatc 3240
91 taaagaatga aattcaagag gtaaaactgg aagaaggaaa tgcaggtaag tttagaagag 3300
92 caagattttt aagatattct gatgaaaata tattatccct gattcatttg ttcatagggt 3360
93 attgtacata tttatgcaga aaaaatgagt taggatcttt acgacatgac atagatatag 3420
94 acgaacatca agaagagtat tatactagta tagagaaagg tacaactgcc aatataaaat 3480
95 atggtagacg atgtctcata ggaacagcgg ctttgtacct gcttttcata ggaataataa 3540
96 tatatacaca aacaaccaag gctcaggtag tatggagact tccaccatta gtagtccccg 3600
97 tgaaagaatc agagataatt ttttgggatt gttgggcacc agaggaaccc gcctgtcagg 3660
98 actttcttgg ggcaatgata catctaaaag ctagtacaaa tataagtata caagagggac 3720
99 ctaccctggg gaattgggct agagaaatat ggggaacatt attcaaaaag gctaccagac 3780
100 aatgtagaag aggtagagta tggagaagat ggaatgagac tataacagga ccatcaggat 3840
101 gtgctaataa cacatgttat aatatctcag taatagtacc tgattatcaa tgttatttag 3900
102 acagagtaga tacttggtta caagggaaag taaatatatc attatgtcta acaggaggaa 3960
103 aaatgttgta taataaatat acaaaacaat tgagctattg tacagatcca ttacaaatcc 4020
104 cactgatcaa ttatacgttt ggacctaatc aaacatgtaa gtggaacact tcacagattc 4080

RAW SEQUENCE LISTING DATE: 06/04/2002
PATENT APPLICATION: US/10/030,500 TIME: 14:52:51

Input Set : A:\33339-242753 SEQLIST.TXT
Output Set: N:\CRF3\06042002\J030500.raw

105 aagactctga gataccaaaa tgtggatggt ggaatcaagc agcctattat aacagttgta 4140
106 gatgggaaag cactgatgta aagtttcatt gtcaaagaac acagagtctg cctggaacat 4200
107 ggcttagaac aatctcatca tggaggccaa agaatagatg ggaatggagg ccagattttg 4260
108 aaagtgaaaa agtgaaagta tctctacagt gtaatagcac aagcaaccta acctttgcaa 4320
109 tgagaagttc aggagattat ggagaggtaa cgggagcatg gatagaattt ggatgtcata 4380
110 ggaaaaaatc aaaacttcat tctgaagcaa ggtttagaat cagatgtaga tgggataaag 4440
111 gggataatac ctcactcatt gatacatgtg gaaaaactca aaatgtttta ggtgcaaatc 4500
112 ctgtagattg caccatgtat gcaaatagaa tgtataattg ttccttacaa aatgggttta 4560
113 ctatgaagat agatgacctt gttatgcatt tcaatatgac gaaagctgta gaaatgtata 4620
114 acattgctgg aaattggtct tgtacatctg acttgccacc aacatggggg tatatgaatt 4680
115 gtaattgtac aaatagtagt agtacaacta gtagttctgg taataaaatg gcatgtcctg 4740
116 gagataaagg tatcttaaga aattggtata acccagtagc aggattaaga caatccctag 4800
117 aaaagtatca agtagtaaaa caaccagatt acttagtggt gccaggggaa gtcatggaat 4860
118 ataaacctag aaggaaaaga gcagctattc atgttatgtt agctcttgca acagtattat 4920
119 ctatggccgg ggcagggacg ggggctactg ctatagggat ggtaacgcaa tatcaccaag 4980
120 ttctggcaac tcatcaagaa gctatagaaa aggtgactga agccttaaag ataaacaact 5040
121 taagattagt tacattagag catcaagtac tagtaatagg attaaaagta gaagctatgg 5100
122 aaaaattttt atatacagct ttcgctatgc aagaattagg atgtaatcaa aatcaattct 5160
123 tctgtaaagt ccctcctgtg ttgtgggaaa gatataatat gactataaat caaacaatat 5220
124 ggaatcatgg aaatataact ttgggggaat ggtataacca aacaaaagat ttacaacaaa 5280
125 agttctatga aataataatg gacatagaac aaaataatgt acaaggaaaa aaagggttac 5340
126 aacaattaca aaaatgggaa gattgggtag gatggatagg aaatattcca aaatatttat 5400
127 aagagctcat aatcagccat accacatttg tagaggtttt acttgcttta aaaaacctcc 5460
128 cacacctccc cctgaacctg aaacataaaa tgaatgcaat tcttgttgtt aacttgttta 5520
129 ttgcagctta taatggttac aaataaagca atagcatcac aaatttcaca aataaagcat 5580
130 ttttttcact gcattctagt tgtggtttgt ccaaactcat caatgtatct taacgcgaat 5640
131 tcgtaatcat ggtcatagct gtttcctgtg tgaaattgtt atccgctcac aattccacac 5700
132 aacatacgag ccggaagcat aaagtgtaaa gcctggggtg cctaatgagt gagctaactc 5760
133 acattaattg cgttgcgctc actgcccgct ttccagtcgg gaaacctgtc gtgccagctg 5820
134 cattaatgaa tcggccaacg cgcggggaga ggcggtttgc gtattgggcg c 5871
136 <210> SEQ ID NO: 2
137 <211> LENGTH: 4522
138 <212> TYPE: DNA
139 <213> ORGANISM: Felis catus
141 <220> FEATURE:
142 <221> NAME/KEY: misc_feature
143 <222> LOCATION: (0)...(0)
144 <223> OTHER INFORMATION: IL-12p40
146 <400> SEQUENCE: 2
147 tcttccgctt cctcgctcac tgactcgctg cgctcggtcg ttcggctgcg gcgagcggta 60
148 tcagctcact caaaggcggt aatacggtta tccacagaat caggggataa cgcaggaaag 120
149 aacatgtgag caaaaggcca gcaaaaggcc aggaaccgta aaaaggccgc gttgctggcg 180
150 tttttccata ggctccgccc ccctgacgag catcacaaaa atcgacgctc aagtcagagg 240
151 tggcgaaacc cgacaggact ataaagatac caggcgtttc cccctggaag ctccctcgtg 300
152 cgctctcctg ttccgaccct gccgcttacc ggatacctgt ccgcctttct cccttcggga 360
153 agcgtggcgc tttctcatag ctcacgctgt aggtatctca gttcggtgta ggtcgttcgc 420
154 tccaagctgg gctgtgtgca cgaaccccc gttcagcccg accgctgcgc cttatccggt 480
155 aactatcgtc ttgagtccaa cccggtaaga cacgacttat cgccactggc agcagccact 540
156 ggtaacagga ttagcagagc gaggtatgta ggcggtgcta cagagttctt gaagtggtgg 600

RAW SEQUENCE LISTING DATE: 06/04/2002
PATENT APPLICATION: US/10/030,500 TIME: 14:52:51

Input Set : A:\33339-242753 SEQLIST.TXT
Output Set: N:\CRF3\06042002\J030500.raw

157 cctaactacg gctacactag aaggacagta tttggtatct gcgctctgct gaagccagtt 660
158 accttcggaa aaagagttgg tagctcttga tccggcaaac aaaccaccgc tggtagcggt 720
159 ggtttttttg tttgcaagca gcagattacg cgcagaaaaa aaggatctca agaagatcct 780
160 ttgatctttt ctacggggtc tgacgctcag tggaacgaaa actcacgtta agggattttg 840
161 gtcatgagat tatcaaaaag gatcttcacc tagatccttt taaattaaaa atgaagtttt 900
162 aaatcaatct aaagtatata tgagtaaact tggtctgaca gttaccaatg cttaatcagt 960
163 gaggcaccta tctcagcgat ctgtctattt cgttcatcca tagttgcctg actccccgtc 1020
164 gtgtagataa ctacgatacg ggagggctta ccatctggcc ccagtgctgc aatgataccg 1080
165 cgagacccac gctcaccggc tccagattta tcagcaataa accagccagc cggaagggcc 1140
166 gagcgcagaa gtggtcctgc aactttatcc gcctccatcc agtctattaa ttgttgccgg 1200
167 gaagctagag taagtagttc gccagttaat agtttgcgca acgttgttgc cattgctaca 1260
168 ggcatcgtgg tgtcacgctc gtcgtttggt atggcttcat tcagctccgg ttcccaacga 1320
169 tcaaggcgag ttacatgatc ccccatgttg tgcaaaaaag cggttagctc cttcggtcct 1380
170 ccgatcgttg tcagaagtaa gttggccgca gtgttatcac tcatggttat ggcagcactg 1440
171 cataattctc ttactgtcat gccatccgta agatgctttt ctgtgactgg tgagtactca 1500
172 accaagtcat tctgagaata gtgtatgcgg cgaccgagtt gctcttgccc ggcgtcaata 1560
173 cgggataata ccgcgccaca tagcagaact ttaaaagtgc tcatcattgg aaaacgttct 1620
174 tcggggcgaa aactctcaag gatcttaccg ctgttgagat ccagttcgat gtaacccact 1680
175 cgtgcaccca actgatcttc agcatctttt actttcacca gcgtttctgg gtgagcaaaa 1740
176 acaggaaggc aaaatgccgc aaaaaaggga ataagggcga cacggaaatg ttgaatactc 1800
177 atactcttcc tttttcaata ttattgaagc atttatcagg gttattgtct catgagcgga 1860
178 tacatatttg aatgtattta gaaaaataaa caaatagggg ttccgcgcac atttccccga 1920
179 aaagtgccac ctgacgtcta agaaaccatt attatcatga cattaaccta taaaaatagg 1980
180 cgtatcacga ggccctttcg tctcgcgcgt ttcggtgatg acggtgaaaa cctctgacac 2040
181 atgcagctcc cggagacggt cacagcttgt ctgtaagcgg atgccgggag cagacaagcc 2100
182 cgtcagggcg cgtcagcggg tgttggcggg tgtcggggct ggcttaacta tgcggcatca 2160
183 gagcagattg tactgagagt gcaccatatg cggtgtgaaa taccgcacag atgcgtaagg 2220
184 agaaaatacc gcatcaggcg ccattcgcca ttcaggctgc gcaactgttg ggaagggcga 2280
185 tcggtgcggg cctcttcgct attacgccag ctggcgaaag ggggatgtgc tgcaaggcga 2340
186 ttaagttggg taacgccagg gttttcccag tcacgacgtt gtaaaacgac ggccagtgcc 2400
187 aagcttggtc tccccctgga tccgctagct taaccgtatt accgccatgc attagttatt 2460
188 aatagtaatc aattacgggg tcattagttc atagcccata tatggagttc cgcgttacat 2520
189 aacttacggt aaatggcccg cctggctgac cgcccaacga cccccgccca ttgacgtcaa 2580
190 taatgacgta tgttcccata gtaacgccaa tagggacttt ccattgacgt caatgggtgg 2640
191 agtatttacg gtaaactgcc cacttggcag tacatcaagt gtatcatatg ccaagtacgc 2700
192 cccctattga cgtcaatgac ggtaaatggc ccgcctggca ttatgcccag tacatgacct 2760
193 tatgggactt tcctacttgg cagtacatct acgtattagt catcgctatt accatggtga 2820
194 tgcggttttg gcagtacatc aatgggcgtg gatagcggtt tgactcacgg ggatttccaa 2880
195 gtctccaccc cattgacgtc aatgggagtt tgttttggca ccaaaatcaa cgggactttc 2940
196 caaaatgtcg taacaactcc gccccattga cgcaaatggg cggtaggcgt gtacggtggg 3000
197 aggtctatat aagcagagct ggtttagtga accgtcagat ggtaccatgc atcctcagca 3060
198 gttggtcatc gcctggtttt ccctggtttt gctggcacct cccctcatgg ccatatggga 3120
199 actggagaaa aacgtttatg ttgtagagtt ggactggcac cctgatgccc ccggagaaat 3180
200 ggtggtcctt acctgcaata ctcctgaaga agatgacatc acctggacct ctgaccagag 3240
201 cagtgaagtc ctaggctctg gtaaaactct gaccatccaa gtcaaagaat ttgcagatgc 3300
202 tggccagtat acctgtcata aaggaggcga ggttctgagc cattcgttcc tcctgataca 3360
203 caaaaaggaa gatggaattt ggtccactga tatcttaagg gaacagaaag aatccaaaaa 3420
204 taagatcttt ctaaaatgtg aggcaaagaa ttattctgga cgtttcacct gctggtggct 3480
205 gacggcaatc agtaccgatt tgaaattcac tgtcaaaagc agcagaggct cctctgaccc 3540

RAW SEQUENCE LISTING DATE: 06/04/2002
PATENT APPLICATION: US/10/030,500 TIME: 14:52:51

Input Set : A:\33339-242753 SEQLIST.TXT
Output Set: N:\CRF3\06042002\J030500.raw

```
206 ccaaggggtg acttgtggag cagcgacact ctcagcagag aaggtcagag tggacaacag 3600
207 ggattataag aagtacacag tggagtgtca ggagggcagt gcctgcccgg ctgccgagga 3660
208 gagcctaccc attgaagtcg tggtggacgc tattcacaag ctcaagtacg aaaactacac 3720
209 cagcagcttc ttcatcaggg acatcatcaa accggaccca cccaagaacc tgcaactgaa 3780
210 gccattaaaa aattctcggc atgtggaagt gagctgggaa taccctgaca cctggagcac 3840
211 cccacattcc tacttctcct taacatttgg cgtacaggtc cagggcaaga acaacagaga 3900
212 aaagaaagac agactctccg tggacaagac ctcagccaag gtcgtgtgcc acaaggatgc 3960
213 caagatccgc gtgcaagcca gggaccgcta ctatagctca tcctggagca actgggcatc 4020
214 cgtgtcctgc agttaggagc tcataatcag ccataccaca tttgtagagg ttttacttgc 4080
215 tttaaaaaac ctcccacacc tccccctgaa cctgaaacat aaaatgaatg caattcttgt 4140
216 tgttaacttg tttattgcag cttataatgg ttacaaataa agcaatagca tcacaaattt 4200
217 cacaaataaa gcatttttt cactgcattc tagttgtggt ttgtccaaac tcatcaatgt 4260
218 atcttaacgc gaattcaggg ggagacccaa ttcgtaatca tggtcatagc tgtttcctgt 4320
219 gtgaaattgt tatccgctca caattccaca caacatacga gccggaagca taaagtgtaa 4380
220 agcctggggt gcctaatgag tgagctaact cacattaatt gcgttgcgct cactgcccgc 4440
221 tttccagtcg ggaaacctgt cgtgccagct gcattaatga atcggccaac gcgcggggag 4500
222 aggcggtttg cgtattgggc gc                                         4522
224 <210> SEQ ID NO: 3
225 <211> LENGTH: 4201
226 <212> TYPE: DNA
227 <213> ORGANISM: Felis catus
229 <220> FEATURE:
230 <221> NAME/KEY: misc_feature
231 <222> LOCATION: (0)...(0)
232 <223> OTHER INFORMATION: IL-12p35 (pMOLfIL-12p35 (e-,_e31-) clone 61)
234 <400> SEQUENCE: 3
235 tcttccgctt cctcgctcac tgactcgctg cgctcggtcg ttcggctgcg gcgagcggta 60
236 tcagctcact caaaggcggt aatacggtta tccacagaat caggggataa cgcaggaaag 120
237 aacatgtgag caaaaggcca gcaaaaggcc aggaaccgta aaaaggccgc gttgctggcg 180
238 tttttccata ggctccgccc ccctgacgag catcacaaaa atcgacgctc aagtcagagg 240
239 tggcgaaacc cgacaggact ataaagatac caggcgtttc cccctggaag ctccctcgtg 300
240 cgctctcctg ttccgaccct gccgcttacc ggatacctgt ccgcctttct cccttcggga 360
241 agcgtggcgc tttctcatag ctcacgctgt aggtatctca gttcggtgta ggtcgttcgc 420
242 tccaagctgg gctgtgtgca cgaaccccc gttcagcccg accgctgcgc cttatccggt 480
243 aactatcgtc ttgagtccaa cccggtaaga cacgacttat cgccactggc agcagccact 540
244 ggtaacagga ttagcagagc gaggtatgta ggcggtgcta cagagttctt gaagtggtgg 600
245 cctaactacg gctacactag aaggacagta tttggtatct gcgctctgct gaagccagtt 660
246 accttcggaa aaagagttgg tagctcttga tccggcaaac aaaccaccgc tggtagcggt 720
247 ggtttttttg tttgcaagca gcagattacg cgcagaaaaa aaggatctca agaagatcct 780
248 ttgatctttt ctacggggtc tgacgctcag tggaacgaaa actcacgtta agggattttg 840
249 gtcatgagat tatcaaaaag gatcttcacc tagatccttt taaattaaaa atgaagtttt 900
250 aaatcaatct aaagtatata tgagtaaact tggtctgaca gttaccaatg cttaatcagt 960
251 gaggcaccta tctcagcgat ctgtctattt cgttcatcca tagttgcctg actccccgtc 1020
252 gtgtagataa ctacgatacg ggagggctta ccatctggcc ccagtgctgc aatgataccg 1080
253 cgagacccac gctcaccggc tccagattta tcagcaataa accagccagc cggaagggcc 1140
254 gagcgcagaa gtggtcctgc aactttatcc gcctccatcc agtctattaa ttgttgccgg 1200
255 gaagctagag taagtagttc gccagttaat agtttgcgca acgttgttgc cattgctaca 1260
256 ggcatcgtgg tgtcacgctc gtcgtttggt atggcttcat tcagctccgg ttcccaacga 1320
257 tcaaggcgag ttacatgatc ccccatgttg tgcaaaaaag cggttagctc cttcggtcct 1380
```